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Montana GIS News

Fall Edition, 2002

Another Great Intermountain GIS Users' Conference

By Jane Horton, President Montana Users' Group

At the Big Sky Resort, Montana, View from the Summit--Intermountain GIS Users' Conference, we had a great group of folks with lots of new information trading going on, contacts being made, excellent workshops completed (thanks Stuart Challender and Bob Holliday!). Our plenary and keynote speakers were very informative on the timely subjects of Homeland Security and Information Technology Management. Bruce Cahan, our plenary speaker, came across the continent, from New York City, to speak on the logistics of GIS technologies at Ground Zero of the World Trade Center tragedies. Isn't this putting GIS applications where they can truly make a difference? Our keynote speaker, Brian Wolf, spoke on his ideas of managing Montana's state information technology needs, with a bit of his own historical background in the private sector. Business meets service!

Our attendance was around 300 professionals and students, with the usual strong attendance at the pre- and post-conference workshops. We salute the instructors, as we know how much time, knowledge and energy it takes to pull together and present a top notch workshop. Big Thanks! There were numerous tracks to choose from, and had the usual problem of so many great presentations and the difficulty in getting to all that we wanted to hear. A quandary, but we are so fortunate to have the quandary! Keep those papers coming in every year!

The trend we have seen in past years continues an increasing quality of student and professional posters. The great turnout of entries gave the judges a tough job, but in case you missed the awards announcements, we have included a listing of the results (see page 3). Thank you to all who brought posters, whether in the contest or as display only. They were so interesting to read and had such a wide gamut of design ideas presented. One day we may be less digitally challenged and have them scanned and put on the Intermountain GIS web site! One thing we would like to emphasize, however, is to not forget there is an entry option of web applications. These types of presentations will rely on adequate internet connectivity, so we will strive to have that available to all in the future.

In closing, we had a very good conference last April, and thanks so much to all of you that participated. The conference would not exist, were it not for the great and diverse GIS community in the inland northwest! See you at Coeur d'Alene in April 2003!

Look For Information on the 2003 Intermountain Users Conference on Page 2.

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2003 Intermountain Users Conference
Coeur d'Alene, April 6th—10th

By Dave Williamson, Conference Coordinator

The Intermountain GIS Conference is an annual conference hosted jointly by the Montana GIS Users' Group and the Northern Rockies Chapter of the Urban and Regional Information Systems Association (URISA). The event alternates each year between locations in Montana and Idaho, and offers the intermountain west community a low cost opportunity to learn about the latest technologies and developments, meet with representatives of various agencies and industry vendors, and to share vital information and expertise in the interdisciplinary fields of GIS.

This year's conference will be held at the "four star" Coeur d'Alene Resort on the shore of beautiful Lake Coeur d'Alene in Idaho's Northern Panhandle. The conference will include full-day pre-conference workshops on Sunday, April 6th; half-day workshops on the morning of Monday, April 7th, sessions on Monday afternoon through Wednesday morning, regional and special interest meetings on Wednesday afternoon, and full-day post conference workshops on Thursday, April 10th. Our Public Night will be held on the Monday, April 7th, and our Boat Cruise Banquet will be on Tuesday, April 8th. Also, we are pleased to host an early season golf tournament at the "Gold Medal" Resort Golf Course on Sunday, April 6th preceding the conference (rated one of the Top 20 Resorts by Golf Odyssey and Golf Magazine in 2000). **More information on conference logistics go to: www.intermountaingis.org/conference.htm**

The conference theme for 2003 is:

Collaboration in Coeur d'Alene
Public and Private Partnerships in GIS

This year's conference explores how we can better leverage the potential of GIS technology for the management of our communities and landscapes through successful collaborative efforts.

Long before homeland defense attempted to become a marketable issue in GIS, the Federal Geographic Data Committee (FGDC), through the program for the National Spatial Data Infrastructure (NSDI), has sought to develop policies, data standards and models, and procedures for organizations to cooperatively produce and share geographic data. Now as we enter a new age of needing more complete, accurate and maintained data to support analysis and decision making, we are realizing the importance of building sustainable GIS processes, over and above the basic production of GIS products.

Yet, with all the gains realized through technological advances and the NSDI program, the potential of this technology seems to be limited by institutional barriers within our economic and governmental structures. Collaboration, on many levels, and for economic, environmental and governance reasons, may provide us with needed solutions.

Nancy Tosta, former Staff Director for the FGDC, Past President of URISA, and currently working in the private sector, and Daniel Kemmis, Director for the Center of the Rocky Mountain West, will open our conference by outlining the issues and exploring a collaborative vision for GIS. Our workshops and sessions will delve into the components for building successful collaborative efforts. We hope that our conference participants, in both the public and private sectors, will take with them the vision, the tools, and the personal motivation to build collaborative processes into their everyday business models.

Other Upcoming Meetings:

NRIS Seminar: County e911 by RJ Zimmer, Sept. 20, 3-4 pm, MT State Library, Helena.

GIScience 2002 Conference, 25-28 September 2002, Boulder CO. (http://www.giscience.org/GIScience2002/)

Great Plains/Rocky Mountain Division of the Association of American Geographers Annual Meeting, October 10-12, Missoula, MT (http://maps/geog.umt.edu/rmgp)

ITWG (Interagency Technical GIS Working Group) October, 16-17, Helena. *

MTGIS (MT GIS Users' Group) Mid-October. *

MLGGC (Montana Local Gov't GIS Coalition), October 16-17, Helena. *

MGIC (Montana Geographic Information Council) December 5, 2002, Helena. *

***See article on page 8 for a web address.**

Welcome to the Board!!

During the conference at Big Sky, we were at the turning point for some of our board members to step down and new folks come to the table. We had a number of great candidates, and I wish to extend a big thank you to all of you who were nominees on the ballot. We appreciate your offer to serve as a board member, and there will be more opportunities in the years to come!

Our newest board members, as a result of closed ballot elections, are Annette Cabrera, Gerry Daumiller and Catherine Maynard. We thought it would be nice to start a tradition of having brief biographical sketches of the new members. Please, read on...

Annette Cabrera writes: "I was born and raised in Bozeman, Montana. I graduated from Eastern Montana College with a degree in Math and Psychology Education, and married my husband, Nilo, soon after graduation. I taught math and computer programming at Billings Central Catholic High School before moving to Denver. While living in Denver we had our first child, Adam. Shortly after he was born, we moved back to Billings so we could raise our children closer to family. We had our daughter, Janet, two years later. A few years later, I went to work for the Department of Revenue as a clerk and then as a residential appraiser. During that time, Yellowstone County was starting a GIS program and wanted some people from DOR involved to help with the cadastral layer. I was one of those people. Not long after that, I went to work for the County as a GIS technician. I have been with the County for eight years and am currently the GIS Manager."

Gerry Daumiller writes: "I was born in Kalispell and have a B.A. in Geography from the University of Montana. I studied Cartography in graduate school at the University of Wisconsin-Madison for three years and taught computer mapping and introductory physical geography there. I've been on the staff of the Natural Resource Information System (NRIS) at the Montana State Library in Helena since 1988.

(Continued on page 6)

Congratulation to the 2002 Intermountain GIS Map and Poster Contest Winners!

Professional Map, First place
Geologic Maps of Montana, Montana Bureau of Mines and Geology, Butte.

- Geologic Map of the Bridger 30'x60' Quadrangle, by David Lopez.
- Geologic Map of the Bitterroot Valley, by Jeff Lonn and James Sears.
- Quaternary Faults and Seismicity of Western Montana, by Michael Stickney, Kathleen Haller, Michael Machette, Susan Vuke, Edith Wilde, and Bob Bergantino.

Professional Map, Second place
Map of the City of Belgrade, by Brian Overman for the Gallatin County Clerk & Recorder's Office, Bozeman.

Student Map, First Place
Geology of the Five Valleys Region, Western Montana, by Brian W. Collins for the U.S. Forest Service Northern Region, Missoula.

Professional Poster, First Place
GIS for Land Reclamation of the Anaconda Regional Water, Waste, and Soils Operable Unit, by Mike McLeod, DJ&A PC Engineering, Missoula.

Professional Map, Second Place
Bitterroot National Forest Burned Area Recovery Watershed Analysis GIS Process, by Michelle Arthur, Land & Water Consulting, Missoula.

Student Poster, First Place
Using Supervised Classification of Landsat 7 ETM+ for Wildfire Fuel Load Model on Rangeland on the Upper Snake River Plain, Idaho, by Glenn Russell and Keith Weber, Idaho State University GIS Training and Research Center, Pocatello.

Student Poster, Second Place
Placing Milltown Dam in Time and Space, A GIS perspective, by the Cartography Seminar class, University of Montana Department of Geography, Missoula.

Honorable Mention, GIS students of Lewis & Clark State College, Lewiston -- James Hickman, Glenn Brown, Douglas Shoemake, Gloria Baugh, Jennifer Currin, Jeff Aldrich, Wade McManigle, Angela Igoe, Tate Smith, Laura Moyer, Miranda Palmer, and Tom Vestal.

New Census Data Available

By Kris Larson, Census and Economic Information Center (CEIC)

Lots of exciting things are happening at the Census and Economic Information Center in Helena! CEIC, within the Business Resources Division of the Montana Department of Commerce, has always assisted individuals, businesses, governments, communities and economic development efforts by providing Montana demographic, economic and statistical information, as well as technical expertise. As a State Data Center for the U.S. Census Bureau, CEIC is responsible for distributing census data to Montanans in a user-friendly format and has 29 affiliates throughout the state to help in this effort.

When Allan Cox became the director of the program at the start of the decennial census, he emphasized the opportunities for using GIS to visualize the incredible amount of information available. Today, CEIC not only provides census data to the public in the form of tables, graphs, and charts, but also provides mapping services. CEIC helps GIS professionals access the wealth of information in a format that can easily be incorporated into GIS projects. CEIC also creates maps for those people that do not have access to their own GIS resources.

The U.S. Census Bureau releases Summary Files every decennial census. For example, the Census 2000 Redistricting Data Summary File was released in March 2001, down to the census block level. A "block" in census geography has its origins in the number of people that would conceivably occupy a city block in some place like New York City, but may encompass a much larger geographic area in a place like the Bob Marshall Wilderness. Several blocks form a "block group," and several block groups form a "census tract." The release of Summary File 1 last summer includes population and housing counts and racial categories down to the block level data for some items, census tracts for others. Summary File 2, released this winter, includes population and housing characteristics by detailed racial categories down to the census tract level.

The data that interest most people are being released right now. Montana received part of Summary File 3 on May 14, 2002, and just received the rest of it on August 27, 2002. SF3 includes information on selected population and housing characteristics to the block group level. Socio-economic items included in the release are educational attainment, marital status, grandparents as caregivers, disability status, language spoken at home, place of birth, ancestry, employment status, occupation, industry, commuting to work, income in 1999, and poverty status in 1999. SF3 Housing items include units in structure, year structure built, plumbing, home heating fuel, value of owner occupied housing units, monthly rent, and farm residence.

Summary File 4, containing more detailed information on population and housing characteristics by racial categories, is scheduled for release November 2002 through April 2003, down to the census tract level.

Most people are at least somewhat familiar with the decennial censuses, but many people do not realize that the U.S. Census Bureau also collects economic information on years ending in two and seven. The Bureau will begin collecting the economic information for 2002 in January 2003, and start releasing it to the public by December 2003. Contact Kris Larson if you would like to be notified of new releases at 406-841-2743 or klarson@state.mt.us.

CEIC completely revamped its website (thank you Velda Welch!) this year and just made the finishing touches available to the public this spring. If you haven't looked at it lately, check out http://ceic.commerce.state.mt.us/ for a wealth of information.

Last but not least, CEIC recently moved. It's now located in the former federal building at 301 S. Park Ave, P.O. Box 200505, Helena, MT 59620-0505. Don't hesitate to call if you have questions or need more information.

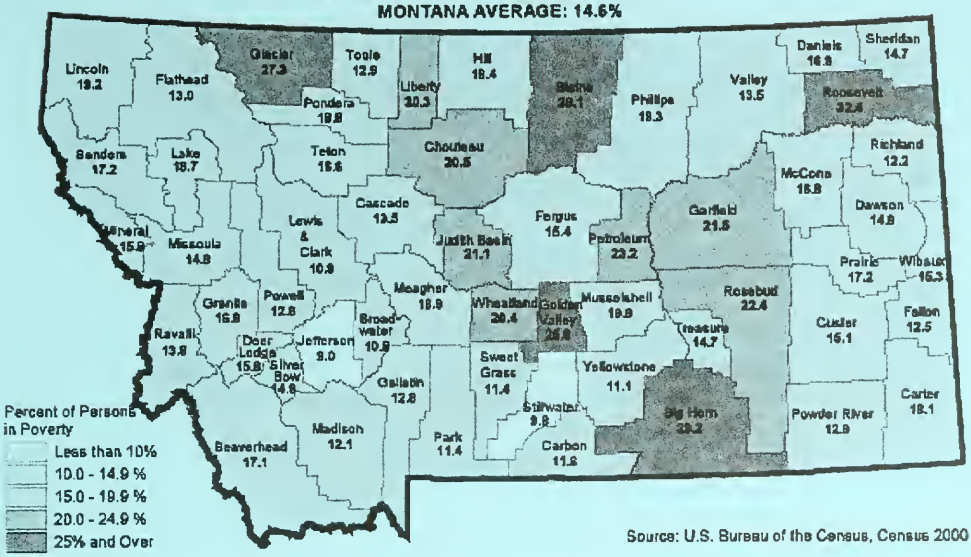
This is the first in a series of articles on currently available and soon to be released data from the Census and Economic Information Center (CEIC).

Watch for upcoming articles. What's available will surprise you!

CENSUS 2000: MONTANA

1999 Percent of Persons in Poverty by County

MONTANA AVERAGE: 14.6%

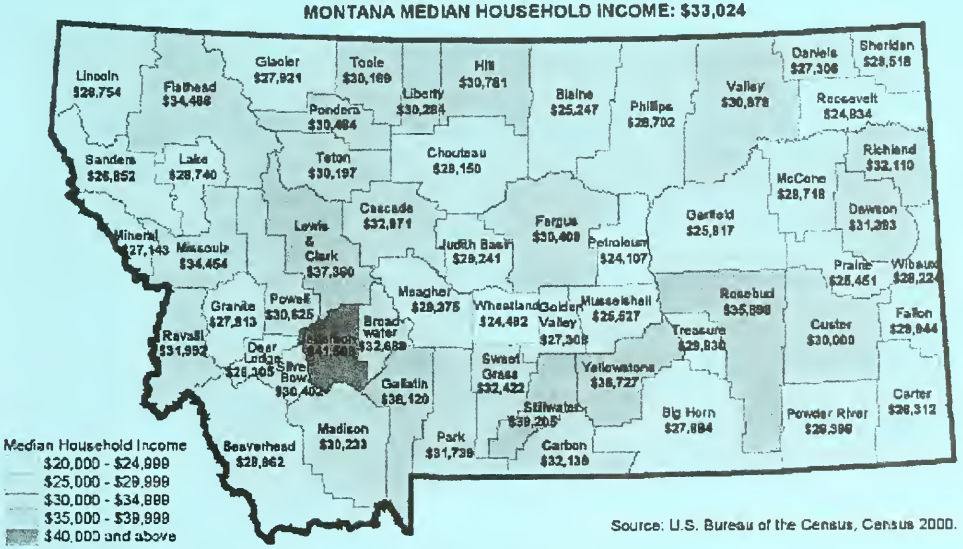


Source: U.S. Bureau of the Census, Census 2000

CENSUS 2000: MONTANA

1999 Median Household Income by County

MONTANA MEDIAN HOUSEHOLD INCOME: $33,024



Source: U.S. Bureau of the Census, Census 2000.

(Continued from page 3)
Shortly after moving to Helena to join NRIS, I met my wife Marilyn, who is also from Kalispell. I've also been a medical laboratory technician in the Air Force and at Deaconess Hospital in Great Falls, and a draftsman in the Mapping Section of the Department of Highways."

Catherine Lee Maynard writes: "I was born and raised in Alberta, and have lived in Montana since the late 1970's. I received my B.S. degree in Environmental Studies from the College of Natural Resources at Utah State University in 1977; and earned a M.S. degree in 1991 from the University of Montana, School of Forestry with an emphasis in forest ecology and soil science. Since 1997 I have worked as a resource analyst for the USDA Natural Resources Conservation Service in Montana, and serve as a liaison to the NRIS program at the Montana State Library. I am involved in developing spatial analysis applications and protocols for a variety of resource inventory, monitoring and land management questions; and coordinate the incorporation of NRCS soil inventory data into the State GIS clearinghouse. Prior to working for the NRCS, from 1990 to 1997, I was a Soil Scientist for Region One of the USFS, where my work included mapping ecological units, and developing spatial analysis techniques for modeling landscape level erosion potential and watershed level geomorphic and stream channel characterizations. My husband Phil and I live in Rimini with our teenage daughter Indigo, and our son Mars is a student at MSU in Bozeman."

Again, a big thanks to all those who were on the ballot, and welcome to the new board members, welcome to the world of integrating GIS into our Montana communities!

The GeoSpatial Trunk: GIS, GPS and Mapping

By Margie Lubinski, Lolo National Forest

The Geospatial Trunk was developed by the education subcommittee of the Montana GIS Users' Group in 1999. It currently contains many items including data CDs, workbooks, Global Positioning Systems (GPS) units and an accompanying curriculum guide that includes over 25 lesson plans for introducing K-12 students to map reading & Interpretation, GPS, and GIS. The Trunk is continuing to grow with the generous donations from vendors and the Montana GIS community. We have added new curriculum received from grants awarded by the education subcommittee in 2001 and we have also received a number of additional donations. As a result, we are presently working on dividing the trunk in order to focus at two levels, grades K-5 and 6-12. We are working in conjunction with the EOS Education Project who will add remote sensing curriculum and will help us organize the two trunks. Since this process will take some time to complete, the trunks will not be available this fall but will be made available again in January, 2003. We hope that the changes being made will help K-12 teachers easily find the curriculum and tools that best suits their needs and will help bring these geospatial tools into the classroom.

The Geospatial Trunk is distributed by the Montana Natural History Center (MNHC) in Missoula, MT. Educators can reserve the trunks by contacting MNHC at:
Phone: 406-327-0405, Email: mnhc@montana.com, Web: www.thenaturecenter.org

If you would like further information about the Geospatial Trunks, know of anyone interested in developing curriculum or would like to donate items, please contact:
Margie Lubinski, Lolo National Forest, 406-329-3743, mlubinski@fs.fed.us
Gretchen Baldus, MSU GIAC, 406-994-6921, gbaldus@montana.edu
Jeff Crews, EOS Education Project, 406-243-2644, jcrews@eoscenter.com
Bryant Ralston, 406-825-0180, bralston@esri.com

As always, we extend our thanks to everyone who has donated to the Geospatial Trunks. The MT GIS Users' Group is a non profit organization and our ideas can only become reality with your help!

Recent donations to the Geospatial trunk:
Trimble GeoExplorer II GPS Units and Trimble Pathfinder Office Software, donated by Trimble Navigation, *National Geographic Topo! With Montana map data*, donated by Cartographics, Missoula, MT *Mapping Our World, GIS Lessons for Educators Curriculum Guidebook*, donated by ESRI
Various ESRI Press Books, donated by ESRI
Montana Map Data at state and county levels, donated by EOS Education Project, UM and Natural Resource Information System, MT State Library
Montana Millennium Mosaic – A LandSat 7 mosaic for the state of Montana, donated by EOS Education Project, UM

NRIS Update

By Duane Anderson, NRIS GIS Manager

We've added a host of new data, reports, and data services to the Natural Resource Information System (NRIS) web site. We now hold aerial photography files for about 93% of the state. We've developed and launched a 24k soils data web site in cooperation with Natural Resource Conservation Service (NRCS) and we've added a website for the new medium resolution National Hydrography Dataset (NHD) in cooperation with the USGS. We've updated and revamped our National Elevation Dataset, created a new interactive Water Rights access system in cooperation with Department of Natural Resources and Conservation (DNRC) and updated and improved the impaired water quality data access system in cooperation with Department of Environmental Quality (DEQ). NRIS also revamped and rolled out the new Montana Fisheries Information System (MFISH) in cooperation with Fish, Wildlife and Parks (FWP).

Dataset	Web Address
Natural Heritage Program Reports	http://nhp.nris.state.mt.us/reports.htm
Bird Distribution	http://nhp.nris.state.mt.us/mbd/
MT Wetlands Legacy	http://www.wetlandslegacy.org/
USGS Aerial Photos	http://nris.state.mt.us/nsdi/doq.asp
NRCS 24K Soils	http://nris.state.mt.us/nrcs/soils/
National Hydrography Dataset (NHD)	http://nris.state.mt.us/nsdi/nhd/
National Elevation Dataset	http://nris.state.mt.us/nsdi/nris/el10/dems.html
DNRC Water Rights	http://nris.state.mt.us/apps/dnrc/waterrightmain.asp
DEQ Water Quality	http://nris.state.mt.us/wis/environet/
FWP MT Fisheries Information System	http://nris.state.mt.us/scripts/esrimap.dll?name=MFISH&Cmd=INST
NRIS Request Tracker	http://nris.state.mt.us/reqapp/userMain.htm

The Montana Natural Heritage program has produced a number of new reports this year to document biological resources within Montana. We've also revamped the Heritage web site to highlight reports, stewardship maps and newly added ecological information. Heritage has partnered with the Montana Audubon to develop the Montana Bird Distribution database and with FWP to create a new website called 'Montana Wetlands Legacy.'

Finally, NRIS developed and launched an integrated internet based request tracking system to record and track data requests for all the programs at NRIS. This system allows users to input requests, track the status on ongoing requests, and make comments or changes while a request is in process.

GIS Training Opportunities

By Kris Larson and RJ Zimmer

At the Spring 2002 joint meeting of the Interagency Technical Working Group (ITWG) and the Montana Local Government GIS Coalition (MLGGC), the groups voted to designate a committee to develop a schedule of GIS training opportunities. The impetus is to better identify, organize, and manage a variety of educational opportunities for GIS in Montana. A planning committee with representatives of the Montana GIS Users' Group (MTGIS), ITWG, and MLGGC, including private and public sector interests, was formed immediately and has met several times over the summer. The committee has developed a list of potential topics, resources, and facilities for GIS training.

The Montana GIS Workshops Committee recognized that training opportunities should be available in a variety of forms including seminars, workshops, and professional development courses. The committee also recognized that training sessions should meet the needs of a wide variety of audiences, from non-GIS folks (such as elected officials) to technical GIS users and GIS managers, who may have different levels of technical skills.

At this time, thirty-seven potential topics have been identified (!) and the planning committee is currently combining topics, identifying geographically dispersed training sites, and **looking for presenters**. A calendar of training events should be ready by the end of this year. The information will be posted on a web site (to be named), as well as distributed via the GIS listservers. For more information on the listserves see page 8.

If you have ideas that you would like to share, workshops that you would like to present, or are interested in working with this committee, please contact RJ Zimmer at 406-447-8367 or RjZimmer@co.lewis-clark.mt.us. Otherwise, watch for a GIS workshop schedule coming out around December of this year!

GIS Group ListServes

By Jane Horton, President Montana Users' Group
and Mike Sweet, UM Forestry Department

In our GIS community, here in Montana, we have a short list of email listserves. We thought it might be useful to include in our newsletter a brief explanation of them and how to subscribe.

The MTGIS list (available via http://www.nris.state.mt.us/gis/news.html), which really is a list for both snail mail and email, is maintained by the folks at our Montana State Library Natural Resources Information Systems, known as NRIS. This list alerts us to Intermountain GIS Conference Announcements, new web-based information available through various agency web pages, and the MTGIS Newsletter current edition and past editions.

The list for ITWG (http://mtgeo.org/ITWG) is a compilation of people and businesses using GIS and working at the state, local, federal and private entities. This list is used to announce meeting dates for ITWG, MLGGC, MGIC, discussions on a multitude of current GIS issues, surveying, GPS, legislation, general support for questions about equipment or software. We try to not allow any advertisement.

The list for MLGGC (http://mtgeo.org/mlggc) is serving information that is generally specific to the local government folks, county and municipal, but may be of great interest to other GIS users. It is used to announce meetings and discussion of GIS issues, as well.

The list for MGIC (http://mtgeo.org/mgic) is for the information dissemination for the Montana Geographic Information Council. It is used for announcement of upcoming meetings and current issues being discussed at the MGIC meetings and by the various MGIC committees.

This information is also available through this web link: http://mtgeo.org/itwg/mission/majordomo.htm

The Montana GIS Users' Group will continue to publish Montana GIS News both as a paper hard–copy and on the web.

To subscribe to the MT GIS News contact Catherine Love at clove@state.mt.us Please request either an e-mail announcement, a paper hard copy or both.

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